

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
#include <string.h>
```

```
struct Employee {
```

```
    int id;
```

```
    char name[30];
```

```
    float salary;
```

```
};
```

```
// Function to add an employee
```

```
void addEmployee(FILE *fp) {
```

```
    struct Employee emp;
```

```
    printf("Enter ID: ");
```

```
    scanf("%d", &emp.id);
```

```
    printf("Enter Name: ");
```

```
    scanf("%s", emp.name);
```

```
    printf("Enter Salary: ");
```

```
    scanf("%f", &emp.salary);
```

```
    fseek(fp, (emp.id - 1) * sizeof(struct Employee), SEEK_SET); // Move to correct record
```

```
    fwrite(&emp, sizeof(struct Employee), 1, fp); // Write employee to file
```

```
    printf("Employee added!\n");
```

```
}
```

```
// Function to display an employee by ID
```

```
void displayEmployee(FILE *fp) {
```

```
    int id;
```

```

struct Employee emp;

printf("Enter Employee ID to display: ");
scanf("%d", &id);

fseek(fp, (id - 1) * sizeof(struct Employee), SEEK_SET);
fread(&emp, sizeof(struct Employee), 1, fp);

if (emp.id != 0) {
    printf("\nEmployee Details:\n");
    printf("ID: %d\nName: %s\nSalary: %.2f\n", emp.id, emp.name, emp.salary);
} else {
    printf("No employee found with ID %d\n", id);
}
}

// Function to list all employees
void listAll(FILE *fp) {
    struct Employee emp;
    rewind(fp); // Go to beginning of file

    printf("\nAll Employees:\n");
    int count = 1;
    while (fread(&emp, sizeof(struct Employee), 1, fp)) {
        if (emp.id != 0) {
            printf("\nEmployee #%d\n", count++);
            printf("ID: %d\nName: %s\nSalary: %.2f\n", emp.id, emp.name, emp.salary);
        }
    }
}

```

```
}
```

```
int main() {
```

```
    FILE *fp;
```

```
    fp = fopen("employee.dat", "rb+");
```

```
    // If file doesn't exist, create it
```

```
    if (fp == NULL) {
```

```
        fp = fopen("employee.dat", "wb+");
```

```
        if (fp == NULL) {
```

```
            printf("Error creating file.\n");
```

```
            return 1;
```

```
        }
```

```
    }
```

```
int choice;
```

```
while (1) {
```

```
    printf("\n--- Employee Management ---\n");
```

```
    printf("1. Add Employee\n");
```

```
    printf("2. Display Employee by ID\n");
```

```
    printf("3. List All Employees\n");
```

```
    printf("4. Exit\n");
```

```
    printf("Enter your choice: ");
```

```
    scanf("%d", &choice);
```

```
switch (choice) {
```

```
    case 1: addEmployee(fp); break;
```

```
    case 2: displayEmployee(fp); break;
```

```
    case 3: listAll(fp); break;

    case 4:

        fclose(fp);

        printf("Exiting...\n");

        exit(0);

    default: printf("Invalid choice.\n");

}

}

return 0;

}
```

```
--- Employee Management ---
1. Add Employee
2. Display Employee by ID
3. List All Employees
4. Exit
Enter your choice: 1
Enter ID: 101
Enter Name: A
Enter Salary: 1000
Employee added!

--- Employee Management ---
1. Add Employee
2. Display Employee by ID
3. List All Employees
4. Exit
Enter your choice: 2
Enter Employee ID to display: 101

Employee Details:
ID: 101
Name: A
Salary: 1000.00
```

--- Employee Management ---

1. Add Employee
2. Display Employee by ID
3. List All Employees
4. Exit

Enter your choice: 3

All Employees:

Employee #1

ID: 101

Name: A

Salary: 1000.00

--- Employee Management ---

1. Add Employee
2. Display Employee by ID
3. List All Employees
4. Exit

Enter your choice: 4

Exiting...

...Program finished with exit code 0

Press ENTER to exit console.